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EXAMINER

COOLEY, CHARLES E

ART UNIT PAPER NUMBER

1723

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/720,139	Applicant(s) DROCCO, DAVIDE	
	Examiner Charles E. Cooley	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-14 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11252003</u> | 6) <input type="checkbox"/> Other: ____ |

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NON-FINAL OFFICE ACTION

1. This application has been assigned to Technology Center 1700, Art Unit 1723 and the following will apply for this application:

Please direct all written correspondence with the correct application serial number for this application to Art Unit 1723.

Telephone inquiries regarding this application should be directed to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 or to the Examiner at (571) 272-1139. All official facsimiles should be transmitted to (703) 872-9306.

2. As the PTO continues to move towards a fully electronic environment, the office will phase-in its E-Patent Reference program. This program: (1) provides downloading capability of the U.S. patents and U.S. patent application publications cited in Office actions via the E-Patent Reference feature of the Office's PAIR system; and (2) ceases mailing paper copies of U.S. patents and U.S. patent application publications with office actions except for citations made during the international stage of an international application under PCT.

Effective June 2004, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions from this Technology Center. Paper copies of foreign patents and non-patent literature will continue to be included with office actions.

The U.S. patents and patent application publications cited in office actions are available for download via the Office's PAIR system. As an alternate source, all U.S.

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patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Inquiries about the use of the Office's PAIR system should be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119, which papers have been placed of record in the file.

Information Disclosure Statement

4. Note the attached PTO-1449 form(s) submitted with the Information Disclosure Statement filed 25 NOV 2003.

Drawings

5. The drawings are objected to under 37 CFR § 1.83(a) since the drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the features canceled from the claims. No new matter should be entered.

- a. it is unclear if the subject matter of claim 14 is shown.

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6. Applicant should verify that (1) all reference characters in the drawings are described in the detailed description portion of the specification and (2) all reference characters mentioned in the specification are included in the appropriate drawing Figure(s) as required by 37 CFR 1.84(p)(5).

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may **NOT** be obtained under the

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provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Specification

7. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

8. The disclosure is objected to because of the following informalities:

- a. the specification lacks a brief description of Figure 11 on page 5.
- b. the Detailed Description of the Invention section of the specification lacks a written description of the subject matter depicted in Figure 11.

Appropriate correction is required.

9. The Abstract of the Disclosure is objected to because:

- a. the extraneous text "(Figure 1, Figure 5)" at the end of the abstract should be deleted.

Correction is required. See MPEP § 608.01(b).

10. The title is acceptable.

Claim Objections

11. Claim 1 is objected to because in line 4, replace "(turning" with --turning--.

Correction is required.

Claim Rejections - 35 USC § 102

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12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-6, 10, 12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Mazza et al. (US 2003/0167931 A1).

The publication to Mazza et al. '931 discloses the recited kneading machine in Figs. 1-4 and the recited inclined kneading implement arms 26 having staggered ends as best seen in Figs. 7A-7B and 8A-8B. The fixed member "O" is seen in Figs. 9A-11.

More particularly, the publication to Mazza et al. '931 discloses a kneading machine which gives rise to a cutting action on the mass of dough during kneading, in order to obtain the best possible development of enzymatic reactions in the dough, by providing a contact with the atmosphere on large surfaces of the mass of dough, which are well distributed throughout the entire mass, at subsequent stages. A further beneficial result which is desired is that of a stretching and "opening" action on the dough, thus is better oxygenated. The kneading machine comprises a substantially cylindrical bowl and at least two kneading tools which are rotatable within the bowl, with the same direction of rotation, around two axes which are substantially parallel to the axis of the bowl, so as to define two theoretical cylinders which are substantially tangent both to each other, and to the circumferential wall of the bowl, and is further

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characterized in that each kneading tool comprises at least one arm, each arm extends substantially on the periphery of the theoretical cylinder having its axis coincident with the respective axis of rotation of the arm, so that said arm follows an orbital movement around its axis of rotation, each arm, is substantially straight at least for a part of its length and arranged along a direction substantially parallel or slightly inclined with respect to a generatrix of the respective theoretical cylinder.

Preferably, the orbital movements of said arms around their respective axes of rotation are synchronized with each other, so that the arms pass substantially simultaneously through the area where the theoretical cylinders are tangent to each other, crossing each other with opposite directions of movement as a result of that the two tools rotate in the same direction.

The kneading machine according to the invention is able to provide a dough of excellent quality. This is due in particular to the cutting action to which the dough is subjected each time that the two arms of the kneading tools pass through the area where the respective theoretical cylinders are tangent to each other, by crossing each other with opposite directions of movement.

The two said theoretical cylinders of the two kneading tools have substantially identical diameters and substantially identical heights and the speeds of rotation of the two arms are also substantially identical. However, it is also possible that the two theoretical cylinders have diameters and/or heights which are different from each other and the two kneading tools move with different speeds. Also with reference to a further preferred feature of the invention, within the bowl no further members are provided,

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beside the kneading tools. Preferably, the theoretical cylinders of the two kneading tools each have a sufficiently great diameter so that each of these cylinders, viewed in the direction of its axis, is not contained within a single quarter of the bowl (where "quarter" means one of the four sectors of the bowl defined by two diametrical planes of the bowl which are orthogonal to each other). Also in the case of the preferred embodiment, the plane to which the two theoretical cylinders are both tangent is also a diametrical plane of the bowl. The cross-section of each of said arms defines a substantially cutting edge along the cylindrical surface of the respective theoretical cylinder. By this feature the cutting action obtained when the two arms cross each other is increased.

The machine of FIGS. 1-4 comprises a basement 10 and a column 11 from which a head 12 projects in a cantilever fashion, so as to hang over the basement. On the basement there is mounted a support 14 carried by a rotatable shaft 15 having an axis 15a. The shaft 15 is driven in rotation by a transmission 16 driven by a motor 17. Motor 17 also drives a belt transmission 18 for rotating the shaft 19 supported by the head 12 which drives a vertical shaft 20 through an orthogonal gear 21. On the vertical shaft 20 there is mounted a gear 22 which drives rotation of a gear 24 mounted on a shaft 30 through an intermediate gear 23. On shafts 20 and 30, which rotate in the same direction and are supported by the head 12, there are fixed horizontal arms 25 and 35 which on their turn extend into vertical arms 26 and 36. Arms 26 and 36 are received within the cylindrical bowl 40 which is removably connected to support plate 14 and has its central axis coincident with axis 15a of shaft 15. The action of the kneading

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arms 26 and 36 is better explained with reference to the diagrams of FIGS. 3 and 4. As shown in FIG. 3, the axes 20a and 30a of shafts 20 and 30 lie on a chord of the circle representing the cross-section of bowl 40. The length of the radial arms 25 and 35 is such that the kneading arms 26 and 36 define respective theoretical cylinders which are substantially tangent to each other at an area T1. Furthermore, the position of shafts 20 and 30 is chosen so that the theoretical cylinders defined by arms 26 and 36 are substantially tangent to the wall of the bowl 40, at areas respectively designated by T2 and T3. For an efficient operation of the machine, the transmission ratios between motor 17 and shafts 15 and 20-30 respectively are chosen so that the tangential speed of arms 26 and 36 is greater than the tangential speed of the side wall of the bowl 40.

As better shown in FIG. 4, arms 26, 36 preferably have a polygonal section, which has a sharp edge, forming a cutting edge, at the area of the arm facing in the direction of movement and towards the outside of the circular path followed by the arm. In the embodiment shown, this edge is respectively designated by 27 and 37 for the two arms 26, 36.

The operation of the above described machine can be clearly understood from the foregoing description of the structure thereof. Actuation of motor 17 causes rotation both of the bowl 40 and the arms 26, 36. Even a slow rotation of the bowl, such as between 5 and 10 rounds per minute, ensures that the entire mass of dough introduced therein is affected by the action of the kneading arms 26, 36. The kneading arms rotate at a greater speed (such as 30-50 rounds per minute) and perform a generic kneading action on the mass of dough, imparting a strong cutting action thereon due to that the

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rotation of the two arms 26, 36 is synchronized so that these arms pass substantially simultaneously at the area where the respective theoretical cylinders are tangent to each other. The cutting effect at the area T1 is clearly understood: each of the arms 26, 36 tends to move the dough in the direction opposite to that of the other arm, so that at the area T1 a substantially shear-like action is exerted, particularly with the aid of the cutting edges. After the arms have crossed each other and the dough have been cut, the arms move away from each other due to their rotation causing thereby an "opening" of the mass so that the latter is extensively placed in contact with the air and is thus oxygenated and prevented from heating.

At the areas in the surrounding of T2 and T3, each arm moves closer to the wall of the bowl with a tangential speed which is greater than the speed of the wall, so that the arm strongly penetrates in the mass held by the wall of the bowl 40, also due to the presence of the front cutting edge formed on the kneading arm. Since the path of arms 26, 36 is such that these arms come in close proximity to the wall, also a cleaning action on the wall is obtained, so that there are no areas in the bowl left where some material may remain or adhere so as to be not subjected to a mixing and kneading action. For this reason, it is preferable that the length of the arms is such that their free end comes in close proximity to the bottom of the bowl.

The shape of the cross-section of the kneading arms may be varied, while preferably always providing a cutting edge which favors penetration of the arm into the mass, for performing a cutting action.

The ratio between the diameter of the path of the kneading arms and the diameter of the bowl is not critical and depends from the distance between the chord on which the axes of rotation of the two kneading tools are located and the centre of the bowl. If this distance is lower than the radius of the theoretical cylinders defined by two arms, as in the illustrated embodiment, it is possible to obtain a satisfactory combination of the cutting action and the mixing action. It is possible for instance to provide a column 11 of telescopic type, in order to enable the head above the bowl to be raised for withdrawing arms 26, 36 from the bowl and allowing easy removal of the bowl itself in view of emptying the bowl from the material contained therein.

It is also possible to provide a further variant, which will be described in detail in the following, in which the machine is provided with a single kneading tool of the above described type, which cooperates with a fixed cooperating member which projects downwardly from the head of the machine, within the rotating bowl. This fixed cooperating member may be formed by an arm arranged at a fixed position where the theoretical cylinder of the single kneading tool is tangent to a diametrical plane of the bowl. In this case, the cutting effect is due to the action of a single rotating arm and the cooperating fixed member. A further possible variant may consist in providing more than two kneading tools cooperating with each other. In this case, it is possible also to provide a non rotatable bowl, since the movement and the exchange of dough within the bowl are obtained due to the action of the kneading tools which are mutually tangent in pairs.

FIG. 5A shows a perspective view of a further embodiment of one of the two kneading tools of the machine of FIGS. 1-4. The kneading tool shown in FIG. 5A, as well as in the plan view of FIG. 5B, designated by reference number 26, preferably has a cross-section in form of a right-angled trapezium (see FIG. 5B) so as to define a front edge, with reference to the direction of rotation (designated by arrow A in FIG. 5B) which is a cutting edge S able to cause a stretching action and subsequently a clear cut in the dough each time that it passes across the other kneading tool 36 of the machine (which naturally may have an identical configuration). In the embodiment of FIGS. 5A, 5B the kneading tool 26 is constituted by a straight arm, parallel to any generatrix of the theoretical cylinder which is defined thereby in the rotation around axis 20a. The figures show a solution where the arm formed in the tool 26 extends from an upper disc 50, which is for coupling to the respective driving shaft.

FIGS. 6A, 6B show a variant of the kneading tool of FIGS. 5A, 5B in which the arm 26 extends from the coupling disc 50 with a root portion r having a substantially triangular shape, with a width progressively decreasing downwardly from the coupling disc 50. The portion r has one edge whose ends are designated in FIG. 6A by S.sub.1, S.sub.2 which lies on the surface of the theoretical cylinder defined by arm 26 and is strongly inclined with respect to a generatrix of this theoretical cylinder. Therefore, the edge S of the kneading tool has a greater extension with respect to the solution shown in FIGS. 5A, 5B. The object of portion r is first of all that of increasing the cutting action due to the greater length of edge S. The portion of the cutting edge S corresponding to that between S.sub.1, and S.sub.2 is arranged on the same theoretical cylinder on

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which the lower portion of edge S of arm 26 is arranged. A further advantage of the provision of portion r is that, due to the inclined arrangement of its edge, during the cutting action it pushes the cut dough downwardly avoiding thereby that the dough is twisted around the kneading tool and lines thereon. A further advantage of portion r is that of strengthening the arm 26 due to a great increase of its cross-section at the connecting area to disc 50.

FIGS. 7A, 7B show a further a variant of the solution of FIGS. 5A, 5B, in which arm 26 is again straight but arranged according to a direction which is slightly inclined with respect to a generatrix of the theoretical cylinder defined by the kneading tool in its rotation.

The angle β formed between arm 26 of the solution of FIG. 7A, 7B and any generatrix of the respective theoretical cylinder, may be comprised between 0° and 10° . The solution shown relates specifically to a case in which angle β is 4.5° , which value has demonstrated to be particularly advantageous. However, other values may be adopted within the range of values which has been indicated. Angles much greater than 10° are not advisable since arm 26 is straight, whereby its opposite ends rotate on different orbital paths with respect to the axis of rotation of the tool. Thus, when the two tools cross each other, the mutual distance of the cutting edges S is not uniform along the length of the arms, which poses a limit to the possibility of inclining each arm while keeping the cutting effect during the kneading action. Therefore, the expression "slightly inclined", wherever used in the present description and in the following claims, must be interpreted as meaning an angle which is not considerably greater than 10° .

FIGS. 8A, 8B show a further variant which is a combination of the solution of FIGS. 6A, 6B and 7A, 7B since it has an arm 26 inclined by an angle β with respect to a generatrix of the respective theoretical cylinder; as in the case of the solution shown in FIGS. 7A, 7B, and is further provided with a root portion r, as in the case of the solution shown in FIGS. 6A, 6B. The parts in common to those figures are designated by the same reference numbers. Furthermore, in the case of the solution of FIGS. 8A and 8B, the arm 26 has a lower end portion q which has its front face (again with reference to the direction of rotation of the arm) which is parallel to any generatrix of the theoretical cylinder of the tool. This feature is clearly visible in FIG. 8A, where it has been shown that the front face of this end portion also forms an angle β with respect to the corresponding face of the upper part of the arm, the angle β being the angle of inclination of arm 26 with respect to the generatrix of the theoretical cylinder. Due to this feature, the end portion q does not compress the dough against the bottom of the bowl and increases the trailing effect on the dough during kneading. The dough is less able to escape from the action of the tools which thus can cause a greater lengthening and stretching effect on the dough.

FIGS. 9A, 9B, 10 and 11 relate to a further embodiment of invention which has a single kneading tool 26, shaped according to any of the variants provided in the embodiment which has been previously described for both the kneading tools. In the case illustrated in FIGS. 9A, 9B, 10, 11, the kneading tool 26 is of the type shown in FIGS. 7A, 7B. However, as indicated, it could have any of the configurations of FIGS. 5, 6 and 8, or even a further alternative configuration. In the case of this second

embodiment, the single kneading tool 26 cooperates with a fixed cooperating member O which is supported at a fixed position within the bowl by the head 12 of the machine, which projects above the bowl. As shown in the drawings, in the illustrated example the fixed cooperating member O is in form of a substantially straight bar directed parallel to any generatrix of the theoretical cylinder C defined by the kneading tool, 26 in its rotation around axis 20a. The cooperating member O is further arranged substantially tangent to this theoretical cylinder and preferably has a cross-section in form of a trapezium (FIG. 9B) substantially corresponding to that of kneading arm 26, defining a cutting edge R which cooperates with the cutting edge S of arm 26 each time that the arm passed across the cooperating member O in order to obtain the required cutting effect.

It is also possible to arrange the cooperating member O according to a direction which is slightly inclined with respect to a generatrix of the theoretical cylinder defined by tool 26, similarly to what has been described for tool 26 with reference to FIGS. 7, 8. Theoretically, the fixed member O could also have a cutting edge R with an extension corresponding to that of the cutting edge S of arm 26 of the solution of FIG. 6. A different choice of the angle which is defined between arm 26 of the kneading tool and the fixed cooperating member O causes a different scissors-like cutting effect between the cutting edges S, R.

FIG. 11 shows a plan view of the machine provided according to this second embodiment, where the cutting edge R of the fixed cooperating member O is arranged at the axis of the bowl. It is also visible that in this solution the theoretical cylinder C of

the kneading tool has a diameter which is substantially identical to the inner radius of the bowl.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazza et al. (US 2003/0167931 A1).

The publication to Mazza et al. '931 discloses the recited kneading machine and teaches that the kneading arms may have various cross sectional shapes including a polygonal cross section as set forth in paragraphs [0034] and [0039] but does not explicitly disclose the square and rhomboidal shape. However, in view of this suggestion, it would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified the cross sectional shapes of the arms to be of any desired polygonal shape, including the recited square and rhomboidal since it has been held that the a change in shape is but a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Allowable Subject Matter

16. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or fairly suggest the recited angular ranges whereas Mazza et al. '931 actually teaches away from angles greater than 10 degrees (paragraph [0047]).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited prior art discloses kneading machines with kneading arms.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Charles" followed by a stylized flourish.

Charles E. Cooley
Primary Examiner
Art Unit 1723

27 May 2005